

### **ABSTRACT**

A Stirling engine, wherein when a linear motor reciprocatingly move a piston in a cylinder, a displacer also reciprocatingly moves in the cylinder storing the displacer. By this, working mixture moves between a compression space and an expansion space. Though a spring for generating resonance is combined with the displacer, a spring for generating resonance for the piston is eliminated. Gas bearings are installed for the piston at two or more positions at specified intervals in the axial direction. An inside flange formed at the end of the cylinder and a stopper plate fixed to the linear motor determine the moving limit of the piston. Since a pin projected from the stopper plate is received by a through hole in a magnet holder, the piston can be prevented from being rotated.